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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,360	06/02/2006	Gabriel Roussie	291278US6X PCT	3635
22850	7590	03/04/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			KEE, FANNIE C	
			ART UNIT	PAPER NUMBER
			3679	
			NOTIFICATION DATE	DELIVERY MODE
			03/04/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/581,360	<b>Applicant(s)</b> ROUSSIE, GABRIEL	
	<b>Examiner</b> Fannie Kee	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 30,43-52 and 57-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30,43-46, 48, 51, 52 and 57-60 is/are rejected.
- 7) ☒ Claim(s) 47,49 and 50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because the abstract should not speak to the purported merits of the invention and should only speak to the technical disclosure of the invention of the instant application. Lines 5-9 starting with "Thus, micro-cracks caused by friction..." should be deleted.

Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 30, 43-46, 48, and 57-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Simmons U.S. Patent No. 4,943,094.

With regard to claim 30, and as seen in Figures 1 and 2, Simmons disclose a method to improve fatigue resistance of a threaded tubular connection subjected to stress variations, the method comprising:

providing a male tubular element (12) including a tapered male threading, and

providing a female tubular element (14) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the male

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and female tubular elements with radial interference between radial load transfer zones of the male and female threadings,

wherein the male and female threadings each have a load flank (30) extending substantially perpendicularly to an axis of the male and female threadings, and wherein the radial load transfer zones (32) are at a radial distance from envelopes of thread roots of the male and female threadings and form an angle of less than  $40^\circ$  with the axis of the male and female threadings (column 2, lines 44-55).

With regard to claim 43, and as seen in Figures 1 and 2, Simmons disclose the radial load transfer zones (32) being ramps constituting stabbing flanks of the male and female threadings over a major portion of a radial height thereof.

With regard to claim 44, and as seen in Figures 1 and 2, Simmons disclose an angle between the ramps and the axis of the threadings being in a range of  $20^\circ$  to  $40^\circ$  (column 2, lines 44-55).

With regard to claim 45, and as seen in Figures 1 and 2, Simmons disclose an angle between the ramps and the axis of the threadings being about  $27^\circ$  (column 2, lines 44-55).

With regard to claim 46, and as seen in Figures 1 and 2, Simmons disclose a profile of the male threading including a first concave rounded portion defining the thread root and tangential to the ramp.

With regard to claim 48, and as seen in Figures 1 and 2, Simmons disclose a groove defining the female thread root extending axially from a first wall constituted by the load flank to a second wall connected to the ramp of the female threading.

With regard to claim 57, and as seen in Figures 1 and 2, Simmons disclose a threaded tubular connection for implementing the method according to claim 46, comprising a male tubular element (12) including a tapered male threading, and a female tubular element (14) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings, in which the radial load transfer zones are ramps (32) constituting the stabbing flanks of the male and female threadings over the major portion of the radial height thereof, and the profile of the male threading including a first concave rounded portion defining the thread root and tangential to the ramp.

With regard to claim 58, and as seen in Figures 1 and 2, Simmons disclose a threaded tubular connection for implementing the method according to claim 48, comprising a male tubular element (12) including a tapered male threading, and a female tubular element (14) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings, in which the radial load transfer zones are ramps (32) constituting the stabbing flanks of the male and female threadings over the major portion of the

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radial height thereof and a groove defining the female thread root extends axially from a first wall constituted by the load flank to a second wall that is connected to the ramp of the female threading.

With regard to claim 59, and as seen in Figures 1 and 2, Simmons disclose the load flanks (30) of the male and female threadings being in contact on at least two consecutive threads.

With regard to claim 60, and as seen in Figures 1 and 2, Simmons disclose a pipe string component that connects an offshore platform with a sea bed that includes a threaded tubular connection for implementing the method according to claim 30, comprising:

a male tubular element (12) including a tapered male threading, and

a female tubular element (14) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings,

wherein the radial load transfer zones are ramps (32) constituting the stabbing flanks of the male and female threadings over a major portion of a radial height thereof.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons.

With regard to claim 51, Simmons discloses the claimed invention but does not expressly disclose that the radial load transfer zones are provided in a zone of full height threads or of threads termed perfect threads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the radial load transfer zones be provided in a zone of full height threads or of threads termed perfect threads because a change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With regard to claim 52, Simmons discloses the claimed invention but does not expressly disclose that the radial load transfer zones are also provided in a zone of imperfect threads, or in a zone of run- out threads.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the radial load transfer zones be also provided in a zone of imperfect threads, or in a zone of run- out threads because a change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

***Allowable Subject Matter***

6. Claims 47, 49 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regard to claim 47, the prior art of record does not teach or suggest that a profile of the male threading includes a second concave rounded portion with a smaller radius of curvature than the first rounded portion and tangential thereto and to the load flank in combination with the method of claims 30, 43, and 46.

With regard to claim 49, the prior art of record does not teach or suggest that a profile of the groove includes a central concave rounded portion framed by first and second rounded concave portions respectively tangential to the first and second walls and with a smaller radius of curvature than the central rounded portion in combination with the method of claims 30, 43, and 48.



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With regard to claim 50, the prior art of record does not teach or suggest that a profile of the female threading includes a convex rounded portion tangential to a second rounded portion and to the ramp, a zone of inflexion between the convex rounded portion and the second rounded portion constituting the second wall in combination with the method of claims 30, 43, and 48.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 30, 43-52, and 57-60 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fannie Kee whose telephone number is (571) 272-1820. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Dunwoody/  
Primary Examiner, Art Unit 3679

/F. K./  
Examiner, Art Unit 3679  
February 26, 2010